	PHASE I ENVIRONMENTAL SITE ASSESSMENT TERMS OF REFERENCE		
	Document: ESM – Phase I ESA	Owner: Environmental & Safety Management	Revision #: 7
Issue Date: 2004-07-30	Approved By: Manager, Climate Change and Environment	Last Review: 2021-12-03	



REPORTING REQUIREMENTS

All Phase I Environmental Site Assessments (ESAs) undertaken for or submitted to The City of Calgary shall be completed in accordance with the Canadian Standards Association *CSA Z768-01 Phase I Environmental Site Assessment* (CSA Standard) (2001, R2012, as amended).



Section 3 Phase I Environmental Site Assessments in the Alberta Environment and Parks *Alberta Environmental Site Assessment Standard (2016)* should also be used as a reference.

This document outlines the CSA Standard components required in completing a Phase I ESA, and is not intended to dictate a fixed report style. The Phase I ESA report may contain the proposed sections as described in the CSA Standard Appendix C. Content for the proposed sections is described in the CSA Standard, and the following content requirements are mandatory for assessments undertaken for The City of Calgary:



SECTION	CONTENT
Executive Summary	<ul style="list-style-type: none"> - The objective(s) and use(s) of Phase I ESA shall be stated. - The municipal address and legal description of the site shall be recorded. - Potential and known on-site and off-site environmental concerns or impacts shall be stated. - Based on the findings of the Records Review, Site Visit and Interviews, a statement shall be provided indicating if additional work is warranted, including but not limited to a supplementary Phase I ESA, a Phase II ESA, or to address CSA Z768-01 Special Attention Items.
Introduction	<ul style="list-style-type: none"> - The objective(s) and use(s) of Phase I ESA shall be stated. - The municipal address and legal description of the site shall be recorded. - Unless otherwise agreed to, the Phase I study area is the site and any other property that is located, wholly or partly, within 100 metres from the site boundary. - The report shall state the assessment was done in accordance with CSA Z768-01 (2001, R2012, as amended) and in accordance with The City of Calgary Phase I Environmental Site Assessment Terms of Reference. A list and rationale for all

 		PHASE I ENVIRONMENTAL SITE ASSESSMENT TERMS OF REFERENCE		
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Introduction (Cont.)	<p>authorized deviations shall be provided. Any exceptions to the CSA Standard shall be listed. Deviations that result in a limited Phase I ESA that is not in accordance with the CSA Z768-01 or The City of Calgary Phase I Environmental Site Assessment Terms of Reference will require additional work to meet the requirements of The City of Calgary’s development application process.</p> <ul style="list-style-type: none"> – When applicable, The City of Calgary business unit that authorized the environmental assessment work should be recorded. – The scope of work shall be stated.
Site Description	<ul style="list-style-type: none"> – The size of site and site dimensions shall be described. – The legal description and municipal address should be noted. – The site location should be described in context of the surrounding roads and its adjacent surroundings. – The site utility services shall be identified and described. – The land use zoning of the site and within 100 metres from the site boundary shall be identified and described. – The regional topography and drainage, along with permanent and intermittent surface water bodies within 300 metres from the site boundary shall be identified and described. The type of surface water, local surface drainage, and users shall be identified and described. – The regional geology in the area shall be identified and described. – The regional hydrogeology in the area shall be identified and described.
Records Review	<ul style="list-style-type: none"> – The site investigation methodology, including a description of the desktop review of current and historical information, physical characteristics of the site and area and the sources of the information shall be stated. – Past and current on-site facilities and uses of the site and properties within 100 metres from the site boundary including location of areas of potential environmental concern, associated contaminants of potential concern and documented facts with respect to actual contamination on the site shall be described.

 	PHASE I ENVIRONMENTAL SITE ASSESSMENT TERMS OF REFERENCE		
	Document: ESM – Phase I ESA	Owner: Environmental & Safety Management	Revision #: 7
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Records Review (Cont.)	<p>Mandatory Records Review:</p> <ul style="list-style-type: none"> - Aerial Photographs: <ul style="list-style-type: none"> o Describe relevant and notable features identified on the site and properties within 100 metres from the site boundary. Include the year of each aerial photograph, scale and source. A 5 to 7 year interval of aerial photographs reviewed should be completed such that the time periods prior to development, initial development and present day are included. The aerial photographs shall evaluate land usage, structures, adjacent land use and areas of ground disturbance. - Property-Use Records: <ul style="list-style-type: none"> o Fire Insurance Plans: Describe occupants and/or infrastructure on the site and properties within 100 metres from the site boundary. The list of plans shall include the publication year, revision years, and sheet numbers. o Business Directories: Describe historical businesses that had the potential to cause environmental impacts at the site and properties within 100 metres from the site boundary. The list of businesses shall include the years reviewed and source. - Title Search: <ul style="list-style-type: none"> o Government of Alberta Historical Land Titles: A detailed historical land title search, as far back as the title search goes, must be completed. Describe the current and historical landowners. - Prior Phase I ESA Reports or other environmental assessment reports: <ul style="list-style-type: none"> o A Government of Alberta Environmental Site Assessment Repository (ESAR) search for site and properties within 100 metres from the site boundary shall be completed. o Summarize relevant environmental assessment reports of interest to the Phase I ESA. o State if The City of Calgary can or cannot rely on reports provided by others. o 'Draft' reports shall not be referenced.
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 	PHASE I ENVIRONMENTAL SITE ASSESSMENT TERMS OF REFERENCE		
	Document: ESM – Phase I ESA	Owner: Environmental & Safety Management	Revision #: 7
	Issue Date: 2004-07-30	Approved By: Manager, Climate Change and Environment	Last Review: 2021-12-03



Records Review (Cont.)	<ul style="list-style-type: none"> - Company Records (if available for commercial and industrial sites). - Regulatory Information: <ul style="list-style-type: none"> o Government of Alberta Authorization / Approval Search o Government of Alberta Water Well Information Database: Identify water wells within a 500 m radius of the site and describe its purpose and use. o Any directions from a Government of Alberta investigator or Director that apply to the site should include the Government of Alberta Reference Number. o Government of Alberta: A search for any spills or complaints and for pipelines on site and properties within 100 metres from the site boundary shall be completed. o Alberta Safety Codes Authority (ASCA): A search for records of underground and above-ground storage tank sites and abandoned tank sites within 100 metres from the site boundary shall be completed. (This function was previously completed by the former Petroleum Tank Management Association of Alberta (PTMAA).) o Environmental Law Centre: An environmental enforcement search shall be completed. - City of Calgary EnviroSite report: Details on this report can be found at www.calgary.ca and is available through CITYonline. - City of Calgary Fire Prevention Bureau conducts property searches and fire incident & release reports. For sites where this record review may not be deemed necessary, a rationale for not completing the record review shall be included in the report. Since June 2020, CFD is now responsible tank registration and inspection. (This function was previously completed by the former Petroleum Tank Management Association of Alberta (PTMAA).) <p>Other Information Sources:</p> <ul style="list-style-type: none"> o Agreement of Lease, Purchase and Sale o Public Health Concerns o Utility Company Records
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Site Visit	<ul style="list-style-type: none"> – The site visit shall be conducted after the Records Review has been completed. – Observe, document and describe the interior and exterior components as described in Section 7.2 of the CSA Standard. – Photographs shall be taken during the site visit. The date the photographs were taken and the direction the assessor was facing shall be documented. The photographs shall be cross-referenced in the text of the report. – The surrounding properties are only to be viewed from City property or publically accessible areas.
Interviews	<ul style="list-style-type: none"> – Conduct interviews with individuals who are familiar with the site history and adjacent properties and obtain information on current and past activities and events that may impact environmental conditions at the site. – Findings of interviews shall be summarized. – Pre-site questionnaire forms can be used as another review document; however, they will not be accepted in lieu of a formal interview.
Evaluation of Findings	<ul style="list-style-type: none"> – The findings of the Records Review, Site Visit and Interviews shall be evaluated to identify actual or potential environmental contamination concerns at the site. – A Table of the area(s) of potential environmental concern and their associated contaminant(s) of potential concern with respect to the site and 100 metres from the site boundary shall be provided. – A Figure indicating the location of the area(s) of potential environmental concern with respect to the site and 100 metres from the site boundary shall be provided. – The Phase I ESA report may contain the proposed sections as described in the CSA Standard Appendix C. – Any limitations of the investigation shall be noted (for example, snow cover, restricted access, limited search radius).
Conclusions	<ul style="list-style-type: none"> – The relative degree of uncertainty associated with the actual or potential environmental contamination concerns at the site shall be summarized. – Potential onsite and offsite receptors at risk shall be identified.

 		PHASE I ENVIRONMENTAL SITE ASSESSMENT TERMS OF REFERENCE		
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Conclusions (Cont.)	<ul style="list-style-type: none"> - A statement indicating if a Phase II ESA is recommended or not shall be included. - When identified, a statement on Special Attention Items and if additional assessment is required prior to building demolition or redevelopment shall be included.
Qualifications of the Assessor	<ul style="list-style-type: none"> - Assessor qualifications shall be provided (for all assessors on the signature page). - The assessors shall have the core knowledge, abilities and specific technical knowledge consistent with the Alberta Environment Competencies for Remediation and Reclamation Advisory Committee’s Recommendations Report, its update, or its successor.
References and Supporting Documentation	<ul style="list-style-type: none"> - All applicable federal, provincial, and municipal legislation and guidelines used to support the findings and conclusions of the Phase I ESA shall be referenced. - Sources of information shall be referenced within the text and the complete reference citation included in an appendix.
Appendices	<ul style="list-style-type: none"> - Tables and Figures: <ul style="list-style-type: none"> o All tables and figures shall have a title and be referenced within the report. o The following figures shall be included: <ul style="list-style-type: none"> o A Site Location Map showing the site within the city of Calgary. o A Site Plan showing locations of known or potential on-site and off-site environmental concerns within 100 metres and the land use zoning. Depending on the overall findings of the ESA, two separate plans showing on-site and off-site environmental concerns may be required. o Figures shall indicate sources used to produce them and adequately address copyright requirements. - Complete results of records searches. - Photographs taken by assessor during site visit. The date the photographs were taken and the direction the assessor was facing shall be documented. The photographs shall be cross-referenced in the text.

 	PHASE I ENVIRONMENTAL SITE ASSESSMENT TERMS OF REFERENCE		
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Appendices (Cont.)	<ul style="list-style-type: none"> – Documentation of Interviews. – Resumes of all assessors on the signature page. – Copies of previous environmental assessment reports on-site and off-site within 100 metres. Copies of the environmental assessment reports on compact disc or digital versatile disc will be accepted.
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DOCUMENTATION REQUIREMENTS

Phase I ESAs commissioned by The City of Calgary shall contain the following wording within the report:

“This report has been prepared for The City of Calgary and their agents. The City of Calgary shall at all times be entitled to fully use and rely on this report, including all attachments, drawings, and schedules, for the specific purpose for which the report was prepared, in each case notwithstanding any provision, disclaimer, or waiver in the report that reliance is not permitted.



The City of Calgary shall at all times be entitled to provide copies of the report to City Council, City of Calgary regulatory boards, City of Calgary employees, officers, agents, affiliates, advisors, consultants, parties contracting with The City of Calgary, lenders and assignees and other governmental authorities and regulatory bodies having jurisdiction, each of whom shall also be similarly entitled to fully use and rely on the report in the same manner and to the same extent as The City of Calgary for the specific purpose for which the report was prepared.”

- For Third Party Reports submitted to The City of Calgary as part of the development application process:
 - One complete original hard copy of final report, including all tables, figures and appendices, or complete electronic copy of final report provided in Adobe® PDF format.
- For assessments undertaken for The City of Calgary:
 - One complete copy of draft report. The draft report will only be accepted by The City of Calgary after internal senior technical review has been completed by the assessor. The City of Calgary to identify if both electronic and hard copies of draft report are required. The draft report shall be clearly labeled as ‘Draft’ (i.e., in the report title, watermarking the pages of the report and in the electronic File Name).

 		PHASE I ENVIRONMENTAL SITE ASSESSMENT TERMS OF REFERENCE		
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- The report should also have a security classification assigned to it, in accordance with The City of Calgary’s Information Security Classification Policy (available at calgary.ca).
- One copy (paper or electronic) of any reports obtained from others as part of the search efforts should also be provided.
- The number of copies of the final report will be identified by The City of Calgary on a project by project basis.
- One electronic copy of final report provided in Adobe® PDF format. If copy is provided on compact disc or digital versatile disc, the compact disc or digital versatile disc label shall be consistent with the title of the hard copy report. Electronic copies can be sent to Environment.Reports@calgary.ca.

Note: This Terms of Reference document does not replace the Environmental Protection and Enhancement Act, the Water Act, Reclamation and Remediation Regulations, the Alberta Tier 1 and Tier 2 Soil and Groundwater Remediation Guidelines or the Exposure Control Guidelines. The document does not list all provisions relating to Phase I Environmental Site Assessments. If there are differences or omissions in this document, the Acts and Guidelines apply.

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SELECTED REFERENCES

Alberta Environment. Alberta Tier 1 Soil and Groundwater Remediation Guidelines. 2014a, as amended. AENV Publ. No. 978-0-7785-9015-6.

Alberta Environment. Alberta Tier 2 Soil and Groundwater Remediation Guidelines. 2014b, as amended. AENV Publ. No. 978-0-7785-9948-7.

Alberta Environment. Competencies for Remediation and Reclamation Advisory Committee Recommendations Report. 2006. AENV Publ. No. 978-0-7785-5470-7.

Alberta Environment and Parks. Alberta Exposure Control Guidelines. 2016. ISBN No. 978-1-4601-1489-2 (on-line edition).

Alberta Environment and Parks. Alberta Environmental Site Assessment Standard. 2016. ISBN No. 978-1-4601-0795-6 (on-line edition).

Alberta Environment and Sustainable Resource Development. Contaminated Sites Policy Framework. 2014. ISBN No. 978-1-4601-0597-9 (on-line edition).

Canadian Standards Association (CSA) Group. 2001 (Reaffirmed 2012). CSA Z768-01 Phase I Environmental Site Assessment.

Government of Alberta. Conservation and Reclamation Regulation, with amendments up to and including Alberta Regulation 31/2012. Chapter 113/1993. Alberta Queen's Printer www.qp.alberta.ca.

Government of Alberta. Environmental Protection and Enhancement Act. Revised Statutes of Alberta. 2010. Alberta Queen's Printer www.qp.alberta.ca.

Government of Alberta. Remediation Certificate Regulation. Alberta Regulation 154/2009. Alberta Queen's Printer www.qp.alberta.ca.

Government of Alberta. Water Act. Revised Statutes of Alberta 2000. Alberta Queen's Printer www.qp.alberta.ca.



 	PHASE I ENVIRONMENTAL SITE ASSESSMENT TERMS OF REFERENCE		
	Document: ESM – Phase I ESA	Owner: Environmental & Safety Management	Revision #: 7
Issue Date: 2004-07-30	Approved By: Manager, Climate Change and Environment	Last Review: 2021-12-03	

TABLE OF REVISIONS

Revision Number	Completed by	Date (yyyy/mm/dd)	Revision Description/Comments
01	C. Kehoe	2005/03/29	Updated for 2005.
02	C. Kehoe	2005/08/02	Clarified land use search and reporting radius for site characterization. Clarified documents to be included in appendices. Require submission of reports retained by others.
03	C. Kehoe	2005/09/08	Updated to reflect use of document by third parties for development application process.
04	C. Kehoe	2005/09/19	Updated to reference mandatory CSA Z768-01 requirements.
05	C. Kehoe	2005/09/26	Revised documentation requirements.
06	R. Calosing	2016/11/09	Updated the mandatory content requirements for Phase I ESAs undertaken for or submitted to The City of Calgary in addition to the requirement of completing in accordance with Canadian Standards Association CSA Z768-01 Phase I Environmental Site Assessment (2001, R2012, as amended). Removed FOIP requests from Records Review section.
07	R. Calosing	2021/12/03	Updated City department from Environmental Programs & Services to Climate Change and Environment. Updated that since June 2020, the search for records of underground and above-ground storage tank sites and abandoned tank sites within 100 metres from the site boundary is now conducted by the Alberta Safety Codes Authority (ASCA), and that CFD is now responsible for tank registration and inspection. These functions were previously completed by the former Petroleum Tank Management Association of Alberta (PTMAA).